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## DATA STREAM GENERATION APPARATUS AND METHOD OF SAME, VARIABLE LENGTH ENCODED DATA STREAM GENERATION APPARATUS AND METHOD OF SAME, AND CAMERA SYSTEM

ABSTRACT OF THE DISCLOSURE

A data stream generation apparatus and method for the JPEG etc. for efficiently performing processing for insertion of fill bits and a camera system using the same, wherein when not yet output data coupled at a data coupler reaches 32 bits, 32 bits of data are output from an MSB side of this not yet output data to an output unit and the remaining data is fed back to the data coupler, while when it does not reach 32 bits, the not yet output data is fed back to the data coupler; fill bits having a data length of a difference between a data length obtained by an addition of input data and the data length of a feedback data and the data length of a whole multiple of one byte are generated at a fill bit adder, added to the MSB side of a marker, and output to a data selection unit; and this marker or the variable length data is selected in accordance with a selection signal, coupled to an LSB side of the feedback data at the data coupler, and supplied to the output unit.